WFM601i
Serial Component
Waveform Monitor

The WFM601i is a new serial digital product, extending the WFM601 Serial Component Monitor platform to provide a more comprehensive evaluation of the digital transport layer. In addition to the serial digital component waveform/vector monitor functions of the WFM601, the WFM601i allows observation of the analog characteristics (eye pattern) and digital compatibility (format checking) of the serial data stream. As in the WFM601, it accepts two serial digital component input signals, and displays the selected signal in traditional component analog form, allowing accurate monitoring and adjustment of component signal levels and timing on source and processing equipment.

The WFM601i provides a comprehensive set of tools for analysis of the serial digital signal transport layer. A new, wide bandwidth, Eye Pattern display provides a clear indication of the digital signal channel's analog performance. Digital signal level and jitter can be measured in accordance with proposed SMPTE recommendations, assisted by time and voltage cursors.

Format checking and reporting is expanded over the WFM601. Format violations are sensed and clearly reported, and when the EDH signal is present, digital errors in the active or full field picture are reported. A CRC checksum is provided for manufacturing environments where it is common to use fixed pattern test signals to confirm the digital integrity of signal processing products.
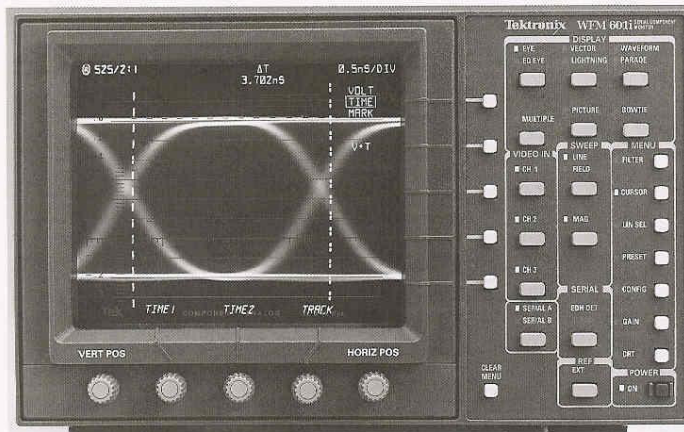
The WFM601i compliments the WFM601 Serial Digital Component Monitor. The WFM601i adds digital transport layer information for the more technical user.

Features

Eye Pattern. The eye pattern display is a wide bandwidth amplitude vs. time view of the 270 MB data signal. In normal mode, the display peak jitter and amplitude errors. A word correlated mode may be selected by more experienced users to observe pattern dependent problems. A two-speed timebase is provided for jitter measurements in accordance with proposed SMPTE practices.

Format Checking and ANC Data ID. A suite of format checks is implemented to assist in analysis of the digital signal. ANC data identification includes audio presence and activity. This feature provides confidence that checked parameters meet industry requirements for subsequent data recovery.

Error Reporting. Local error reporting is expanded to include the above checks, and the report format optimized for maximum ease of use by a busy operator. Remote error reporting is a TTL flag with field resolution, available at the rear panel D-connector, as in the 1730D Series Digital Waveform monitors.

WFM601i Serial Component Waveform Monitor with eye pattern.

Active Picture CRC Readout. A CRC is calculated for each field/frame of video and displayed on the error screen. If the test signal CRC is known, this allows a data integrity check to be made, allowing limited error checking when EDH is not present. This feature is particularly useful in manufacturing environments.

Application

The WFM601i is a comprehensive monitor for the technical operator. It is focused toward digital installation, maintenance, and transmission applications where more technical users need to analyze not only the baseband video signal, but also the digital transport layer that carries that information from place to place in the digital format. The WFM601i also provides analysis capabilities useful in the manufacture of digital system components.

In studio applications using many waveform monitors, the WFM601i will operate in the same area as the WFM601. Serial digital component camera, telecine, recorder, and color correction operating positions will use the WFM601 and technical operating positions will use the WFM601i, with its more comprehensive digital transport layer analysis capabilities.

ORDERING INFORMATION

WFM601i Serial Component Waveform Monitor with Eye Pattern

OPTIONS

A1 — Universal Euro 220 V power cord

A2 — United Kingdom 240 V power cord

A3 — Australian 240 V power cord

ACCESSORIES

1700F00 — Plain Cover

1700F02 — Portable Cabinet, handle, feet, front cover

1700F05 —Dual Rack Mount for two instruments